

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

## Calling card

Patent Number: ☐ US6016298

Publication  
date: 2000-01-18

Inventor(s): FISCHER GERHARD (CH)

Applicant(s):: ADIVAN HIGH TECH AG (CH)

Requested  
Patent: ☐ GB2331959

Application  
Number: US19980049697 19980327

Priority Number  
(s): CH19970001537 19970625; CH19980000526 19980305

IPC  
Classification: G11B7/00

EC  
Classification: B42D15/02, G06K19/04K, G11B7/24

Equivalents: AU6715998, AU724740, BR9802276, ☐ DE29880028U, DE59800485D,  
☐ EP0990220 (WO9900765), B1, ES2156439T, JP2001503184T, NO996153,  
PL337489, PT990220T, SK177199, TR9903255T, ☐ WO9900765

---

### Abstract

A calling card which can be inserted into a conventional CD drive and read. The calling card is centered in a CD drive. Thus, the calling card becomes a calling card CD with a printed upper side, which can be visually detected by an eye, and an underside on which data can be recorded and read by a computer.

Data supplied from the esp@cenet database - I2

# (12) UK Patent Application (19) GB (11) 2 331 959 (13) A

(43) Date of Printing by UK Office 09.06.1999

(21) Application No 9902242.8

(22) Date of Filing 15.04.1998

(30) Priority Data

(31) 153797 (32) 25.06.1997 (33) CH  
(31) 52698 (32) 05.03.1998

(86) International Application Data  
PCT/CH98/00140 De 15.04.1998

(87) International Publication Data  
WO99/00765 De 07.01.1999

(71) Applicant(s)  
Adivan High Tech AG  
(Incorporated in Switzerland)  
Leuholz 17, CH-8855, Wangen, Switzerland

(72) Inventor(s)  
Gerhard Fischer

(51) INT CL<sup>6</sup>  
G06K 19/04, G11B 7/00

(52) UK CL (Edition Q.)  
B6A AC72 ADE AK A304  
U1S S2119 S2268

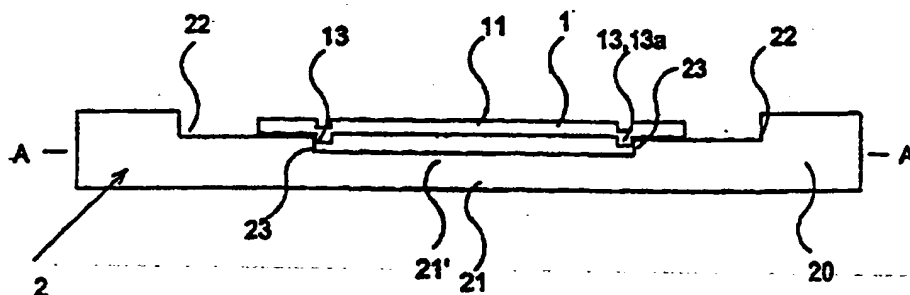
(56) Documents Cited by ISA  
EP 0343982 A EP 0292720 A US 3839601 A  
PAT ABS JPN vol.016 no 218(P-1357),21/05/92 &  
JP04 040586 A (NIPPON TELEGR & TELEPH CORP),  
10/02/92 PAT ABS JPN vol.005,no.048(P-055),07/04/81  
& JP56 003471 A ( MATSUSHITA ELECTRIC IND CO  
LTD) 14/01/81

(58) Field of Search by ISA  
INT CL<sup>6</sup> G06K, G11B

(74) Agent and/or Address for Service  
Keith W Nash & Co  
90-92 Regent Street, CAMBRIDGE, CB2 1DP,  
United Kingdom

(54) Abstract Title  
Visiting card with CD rom

(57) The invention relates to a new visiting card (1) which in addition to being used in the usual fashion can also be inserted into a normal CD player (2) and read in this way. This is made possible by special centring means in a CD player (2). The visiting card becomes a CD visiting card having a printed upper side visually perceived by the eye and a lower side which can be inscribed with data and read by a computer.



GB 2 331 959 A

Fig. 2

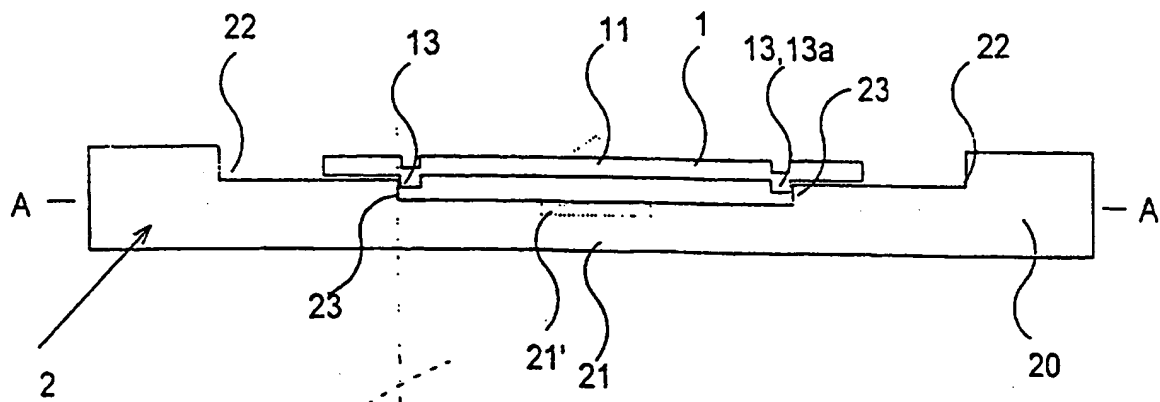


Fig. 1

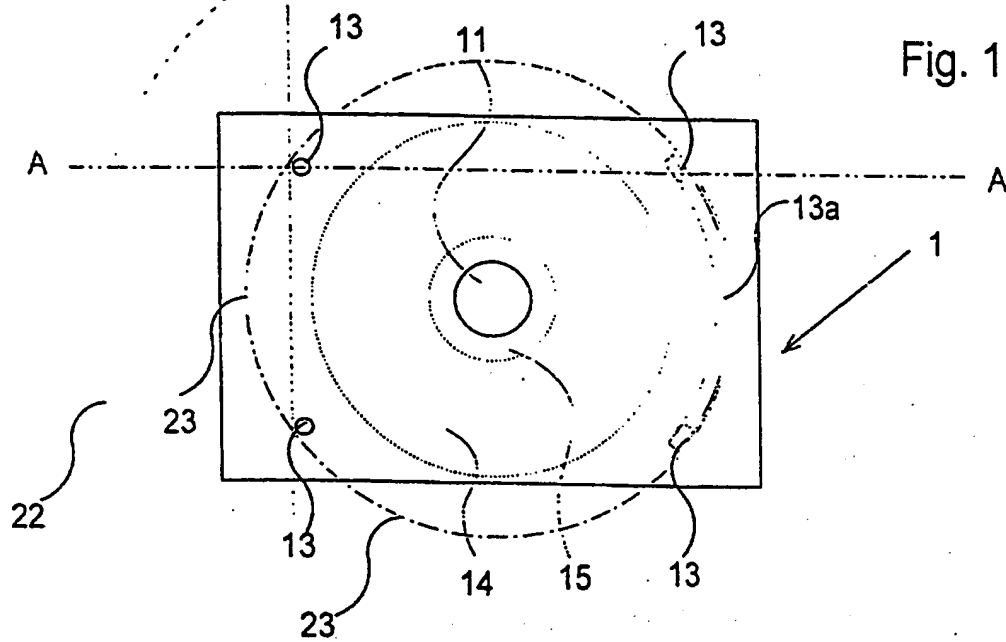
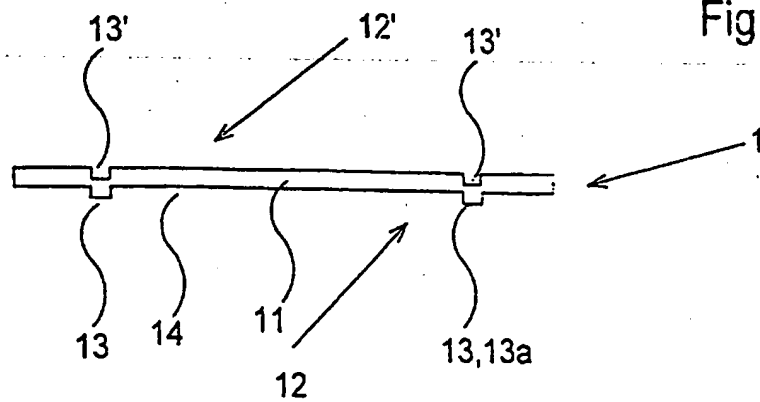


Fig. 3



### A visiting card

The invention relates to a visiting card according to the preamble of the independent patent claim.

Visiting cards for a long time have been generally known and commonplace. They are printed and provided with names, company descriptions and other visually recognisable information on paper or other base materials. Since the format is relatively small, only a very limited quantity of information may be printed thereon. This quantity of information is sufficient with a direct presentation to a business partner. With a later viewing of the visiting card one would mostly however be happy if one would have significantly more information in connection with the presenter or the company, in order to activate and supplement the powers of remembering.

It is the object of the invention to specify a visiting card which in a conventional manner may be printed with information and additionally permits a large quantity of information to be conveyed.

This object is achieved by the invention specified in the patent claims.

An additional advantage of the invention is that as information, for example complete company information, such as company program, catalogues, order forms, and for example even automatic Internet entrance into the Home-Page of the company may be present on the visiting card.

A further advantage of the invention lies in the fact that the visiting card according to the invention can be manufactured also in various formats.

The invention is hereinafter described in the context of the drawings. There are shown:

Figure 1 an example of a visiting card according to the invention in a view from below;

Figure 2 the visiting card inserted in the CD-ROM drive;

Figure 3 an example of a visiting card according to the invention in cross section.

The invention is now described in more detail in the context of the drawings.

The basic concept of the invention lies in the combination of a visiting card and a CD-ROM. On the one hand visiting cards consist mostly of paper, semi-cardboard or plastic. They have a certain format, roughly the same as is usual with credit cards and as is very widespread worldwide. On the other hand already CD's with music or with a catalogue or company information have been distributed by various companies. However one may not insert these into visiting card compartments since they are too large and round. This too applies to Mini-CD's.

The new visiting card now permits both. It is the case of a CD which in format corresponds to the visiting cards and despite this may be inserted and read in a normal CD drive. Thus the business card becomes a visiting card CD.

As is known a usual CD drive comprises a central drive pin and a circular drive centering into which a CD is inserted. The drive centering centers the inserted CD and by way of the drive pin it is driven in the drive. During the operation the CD is situated in and on a small air cushion guided in the drive centering driven by the pin and the central rest. So that the normal CD and the Mini-CD may be used in the same drive, the centering for the CD's is designed in two stages adapted to the two different diameters. The drive and centering as is known are mechanically separated from one another so that the CD's are not mechanically loaded and damaged in the region of their drive opening.

Up to now certain CD's have already been manufactured in a shape deviating from the round disk for advertising purposes. However these comprise a shape with which the edge always at several locations corresponds to the normal circumference of the CD. If such CD's are inserted into the drive then the drive pin engages into the central drive recess of the CD and the CD bears with several points of its diameter within on the

centering edge of the drive centering. These CD's are described as a "shaped CD". Their shape is milled out of a usual round CD.

A CD with a size and shape of a visiting card is however too small in order to rest in the drive centering. In no way does it correspond to the format of the normal CD or the Mini-CD. The decisive problem is the centering in the usual CD drive. This is solved in that the visiting card as a CD-Rom is shaped in the visiting card format and is provided with suitable means for centering in the CD drive.

The visiting card 1 according to the invention is shown seen from below in the Figure 1. It has a format as is usual for visiting cards. It is manufactured as a usual CD from the same material and in the same manner. In the middle there is located a drive recess 11 which is surrounded by a resting region 15. To this there is connected the data region 14 which can be written with data and which can be read in the CD drive. Arranged on a circle are a number of centering cams 13, here preferably four. The centering cams are arranged such that when the visiting card is inserted in the CD drive, the centering cams 13 bear on the centering shoulder (see Figure 2) and hold the visiting card in a centered manner. The means for centering in the CD drive instead of a number of individual naps or cams may also alternatively comprise centering beads 13a arranged on both sides symmetrically to the drive recess 11. In Figure 2 this is only shown on one side. These each describe a sector of a circle, wherein the radius is selected such that the outer edges of the centering bead 13a come to bear on the centering shoulder 23 with minimal play.

In the Figure 2 a visiting card 1 according to the invention is inserted in a drive drawer 20 of a CD drive. It is shown in the section A-A according to Figure 1. It can be easily seen how the drive drawer 20 comprises a first centering shoulder 22 for usual CD's and a second centering shoulder 23 for Mini-CD's. The drive pin 21 and drive rest 21' of the drive recess 11 of the visiting card are only indicated, since they are not located in the section A-A. The visiting card 1 then with its centering means 13, 13a projecting downwardly bears on the centering edge 23 for Mini-CD's, of the drive. This guarantees a secure centering of the visiting card 1 in the drive. At the same time it of course bears on the drive rest 21' and the drive pin 21 projects through the drive recess 11. On rotation of the visiting card a minimal air cushion is formed between the visiting card and the drawer or the centering edge 23. Thus the visiting card on insertion into the drive is definitively and cleanly centered and on running it is not mechanically loaded.

The manufacture of the shape is then not effected by milling out the shape from a finished CD but by a punching procedure. Thus in a single working procedure the shape and the means for centering the visiting card CD may be manufactured. So that the shape is cleanly cut at the circumference and with this the centering cams may be formed, the punching procedure must take place slowly so that on producing the centering cams 13, there takes place a deformation but no piercing. With this the centering cams are slowly pressed downwards by small stamps in the punching tool and the material is plastically deformed. With this of course minimal indentations 13' arise on the printable upper side 12. During the punching procedure, on the one hand the shape is punched out and on the other hand in the region of the centering cams 13 to be formed the material is only deformed. This procedure makes possible the manufacture of the visiting cards as a visiting card CD in one working procedure and therefore very inexpensively and carefully. Of course it is also possible to adhere the centering cams onto the lower side 12 in a separate working procedure.

On the upper side the visiting card may be normally printed as previously with the name, address and further details. On the lower, the data side, it is the case of a usual CD, which can be written with data readable by computer. For example a company protocol, a company catalogue and similar information including multimedia may be recorded on. It is however also possible to store a complete computer program thereon. As an example an automatic access to a computer or a Home-Page of a company is mentioned.

The technology of the manufacture of the visiting card 1 and of the arrangement of the centering cams 13 then makes it possible to form the visiting card in almost any shape, since it is centered in the drive by the centering cams 13 and not by the outer circumference.



Claims

(Revised claims according to Art. 19, PCT)

1. A visiting card of plastic with a printed upper side with directly visually readable information, with a lower side which is provided with electronically processed data which can be optically or acoustically reproduced by a CD drive, and with means for its centered accommodation in a CD drive, characterised in that the means for the centered accomodation are centering cams (13) or centering beads (13a) projecting downwardly from the lower side (12).
2. A visiting card according to claim 1, characterised in that the centering cams (13) are arranged such that in the condition of the visiting card inserted into a CD drive they at least approximately bear on the centering shoulder (23) for Mini-CD's.
3. A visiting card according to claim 1, characterised in that the centering beads (13a) are arranged such that in the condition of the visiting card inserted into a CD drive they at least approximately bear on the centering shoulder (23) for Mini-CD's.
4. A visiting card according to claim 2 or 3, characterised in that the centering cams (13) or the centering beads (13a) are produced by plastic deformation.
5. A visiting card according to claim 2 or 3, characterised in that the centering cams (13) or centering beads (13a) are adhered to the lower side (12).
6. A visiting card according to one of the claims 1 to 5, characterised in that on the circumference it has any shape as an outer contour.
7. A visiting card according to claim 6, characterised in that the shape may be produced by a punching procedure from a CD.
8. A visiting card according to claim 7, characterised in that the centering cams (13) or the centering beads (13a) and the shape can be produced in the same punching procedure.

# INTERNATIONAL SEARCH REPORT

International Application No.

PCT/CH 98/00140

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 G06K19/04 G11B7/00 G11B17/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G11B G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 839 601 A (KIMURA Y ET AL) 1 October 1974 see column 3, line 69 - column 4, line 67; figures 1-3	1
X	PATENT ABSTRACTS OF JAPAN vol. 016, no. 218 (P-1357), 21 May 1992 & JP 04 040586 A (NIPPON TELEGR & TELEPH CORP), 10 February 1992, see abstract	1
A	EP 0 343 982 A (CANON KK) 29 November 1989 see abstract; figures 1,2	1
-/-		

☒ Further documents are listed in the continuation of box C

☒ Patent family members are listed in annex

### \* Special categories of cited documents

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

Date of the actual completion of the international search

25 June 1998

Date of mailing of the international search report

16/07/1998

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Gysen, L

# INTERNATIONAL SEARCH REPORT

In tional Application No

PCT/CH 98/00140

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 005, no. 048 (P-055), 7 April 1981 & JP 56 003471 A (MATSUSHITA ELECTRIC IND CO LTD), 14 January 1981, see abstract ---	1
A	EP 0 292 720 A (POLAROID CORP) 30 November 1988 see column 1, line 50 - column 2, line 11 -----	1

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CH 98/00140

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3839601	A	01-10-1974	NONE	
EP 0343982	A	29-11-1989	DE 68922435 D	08-06-1995
			DE 68922435 T	05-10-1995
			JP 2064982 A	05-03-1990
			US 5307338 A	26-04-1994
EP 0292720	A	30-11-1988	US 4800551 A	24-01-1989
			JP 1003875 A	09-01-1989